

FIG. 1A  
Prior Art

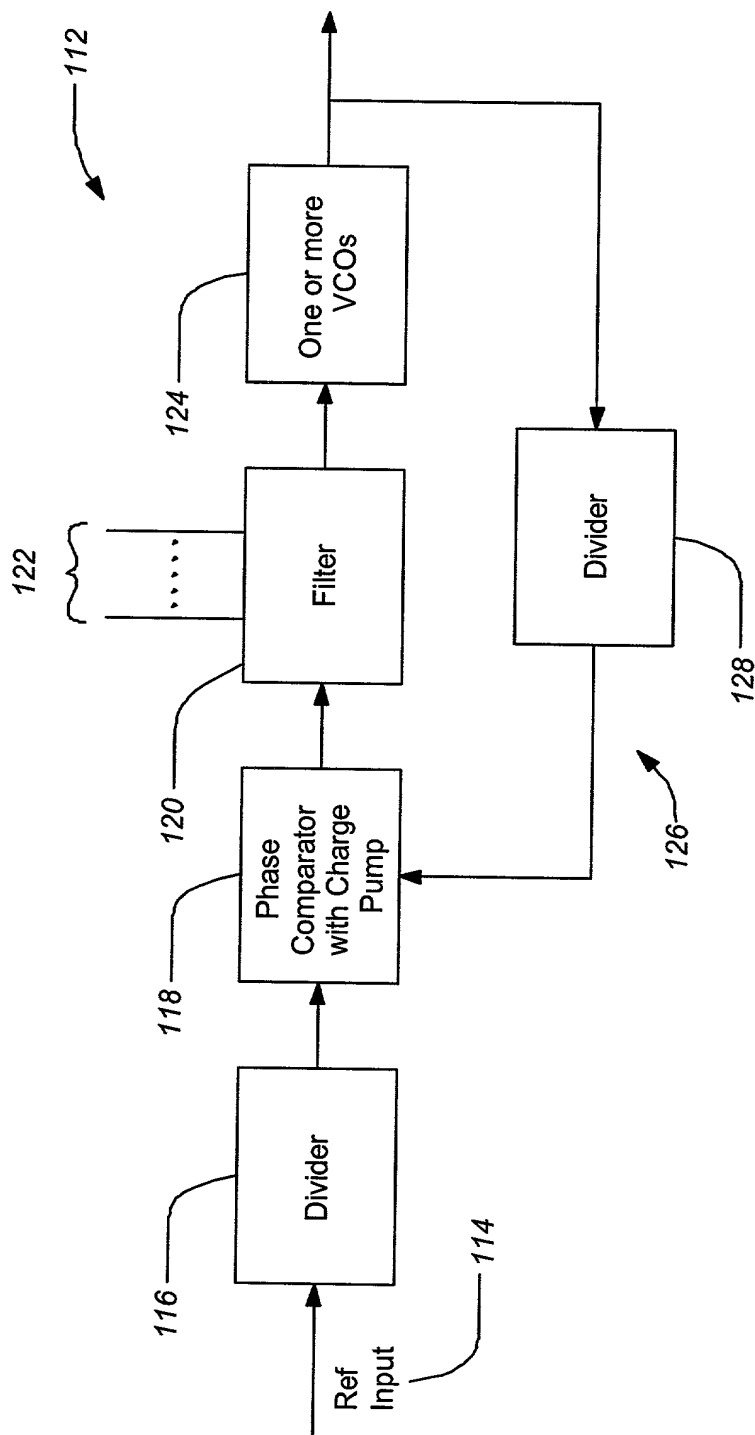


FIG. 1B

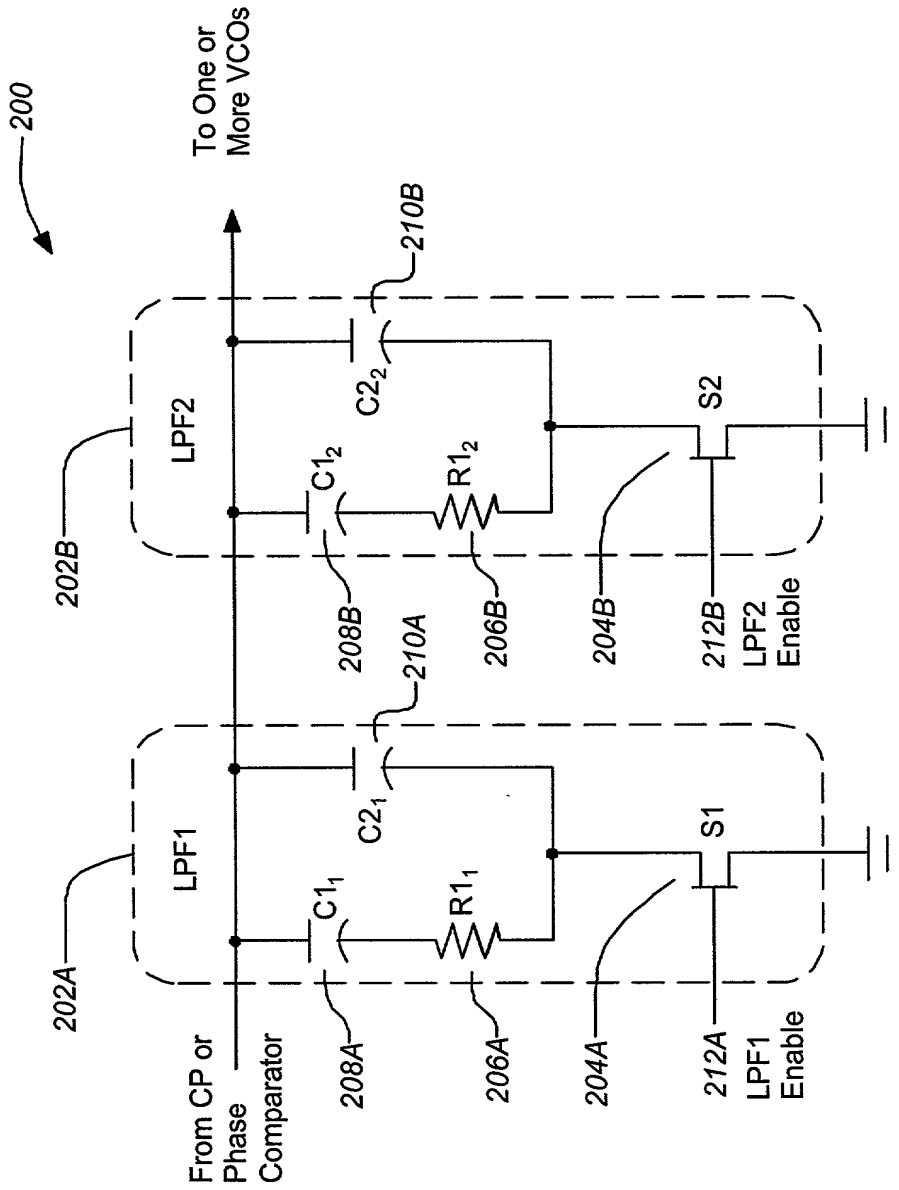


FIG. 2A

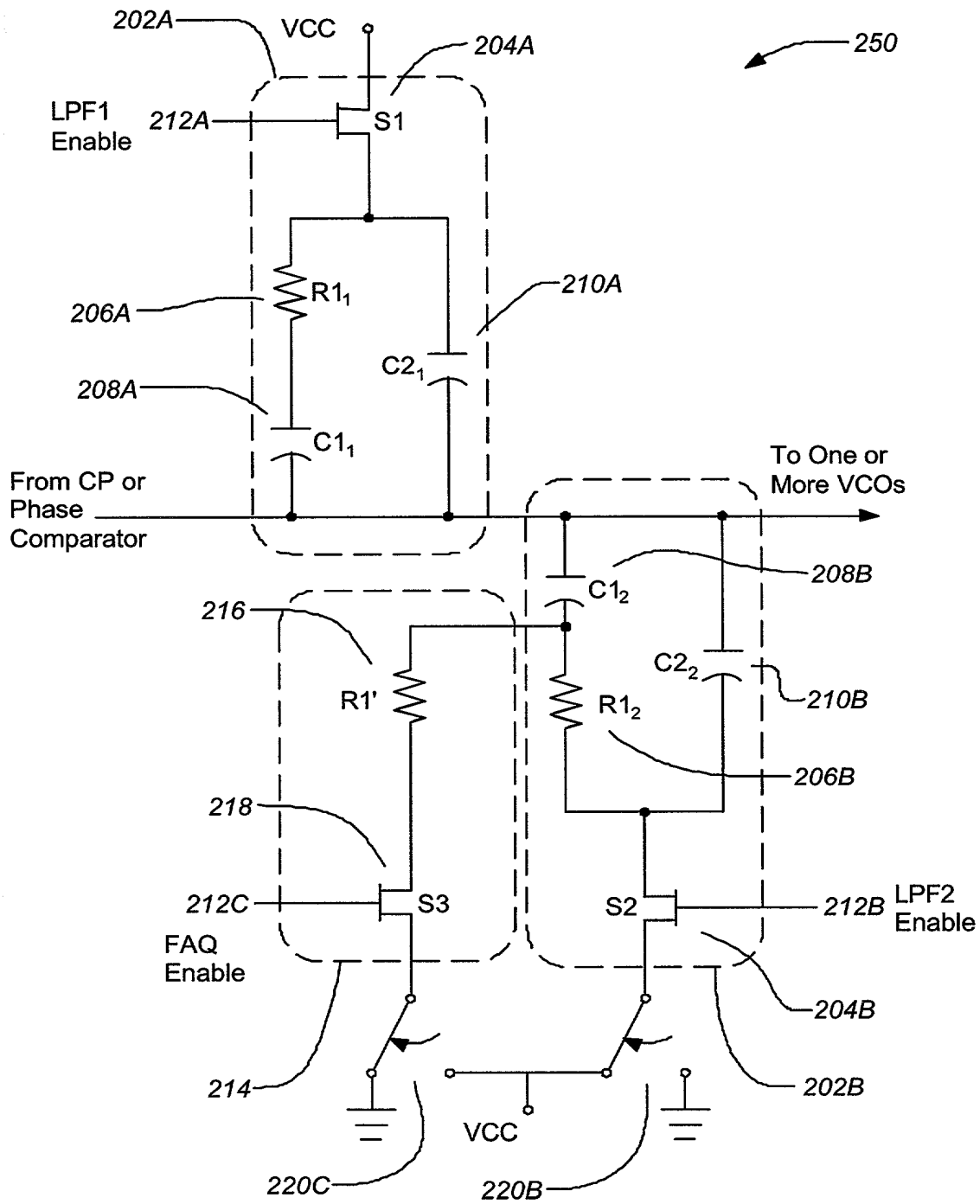
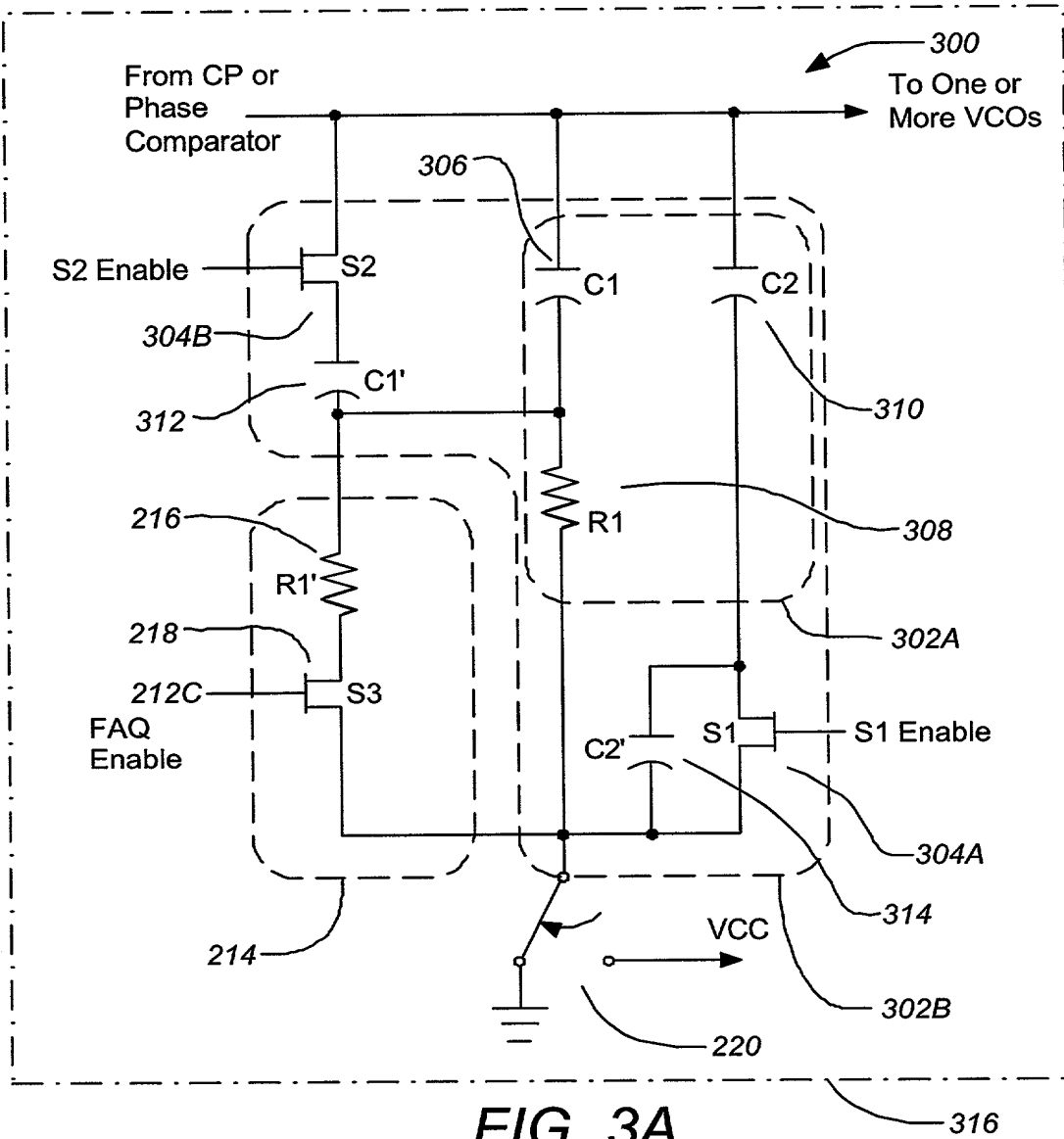


FIG. 2B



Loop Filter	S1	S2	S3	C1 (total)	C2 (total)	R1 (total)
LPF1 (BW1)	Closed	Open	Open	C1 only	C2 only	R1
LPF1 w/FAQ (BW1')	Closed	Open	Closed	C1 only	C2 only	$\frac{R1 \times R1'}{R1 + R1'}$
LPF2 (BW2)	Open	Closed	Open	C1 + C1'	$\frac{C2 \times C2'}{C2 + C2'}$	R1
LPF2 w/FAQ (BW2')	Open	Closed	Closed	C1 + C1'	$\frac{C2 \times C2'}{C2 + C2'}$	$\frac{R1 \times R1'}{R1 + R1'}$

**FIG. 3B**

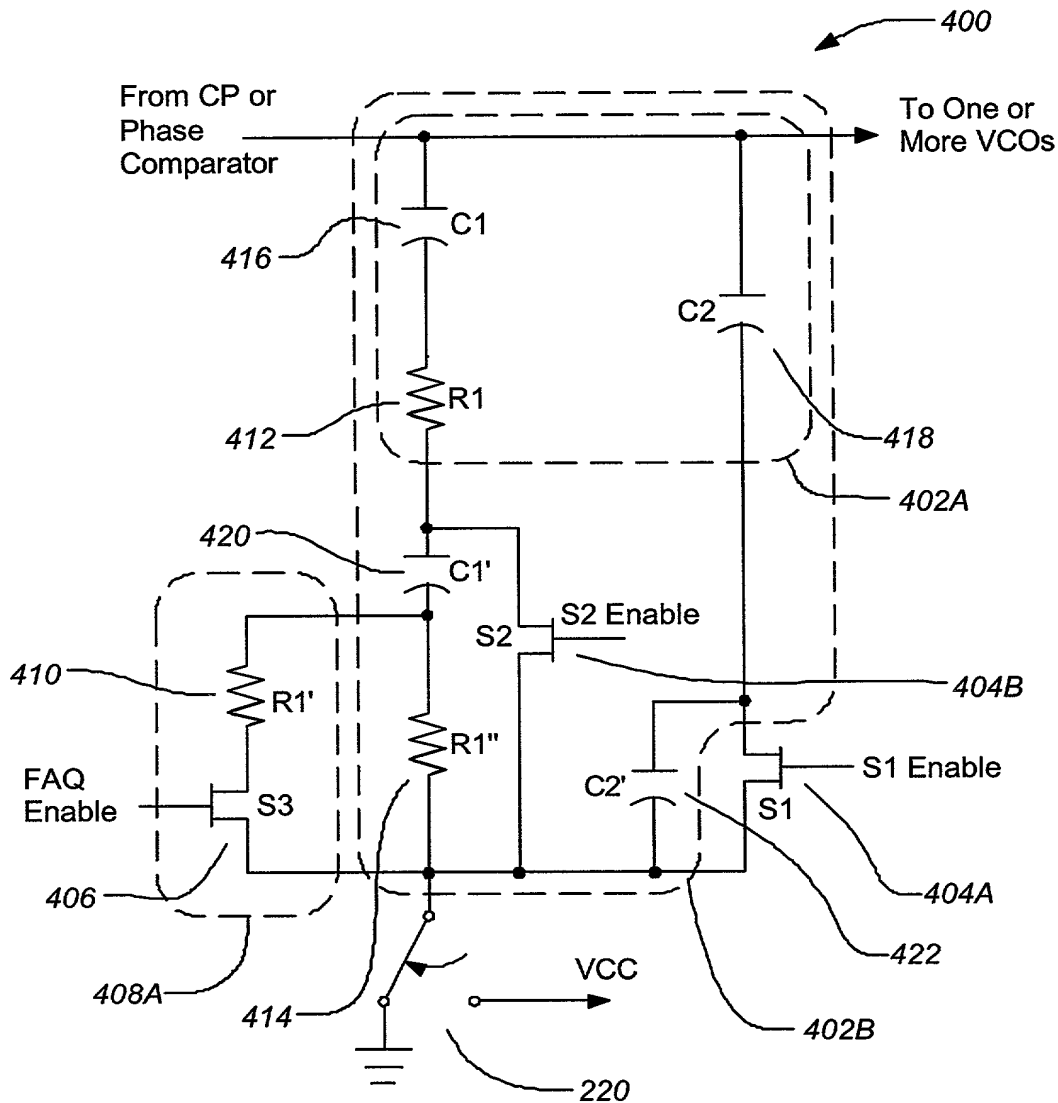


FIG. 4A

Loop Filter	S1	S2	S3	C1 (total)	C2 (total)	R1 (total)
LPF1 (BW1)	Closed	Closed	X	C1 only	C2 only	R1
LPF2 (BW2)	Open	Open	Open	$\frac{C1 \times C1'}{C1 + C1'}$	$\frac{C2 \times C2'}{C2 + C2'}$	$R1 + R1''$
LPF2 w/FAQ (BW2')	Open	Open	Closed	$\frac{C1 \times C1'}{C1 + C1'}$	$\frac{C2 \times C2'}{C2 + C2'}$	$R1 + \frac{R1' \times R1''}{R1' + R1''}$

FIG. 4B

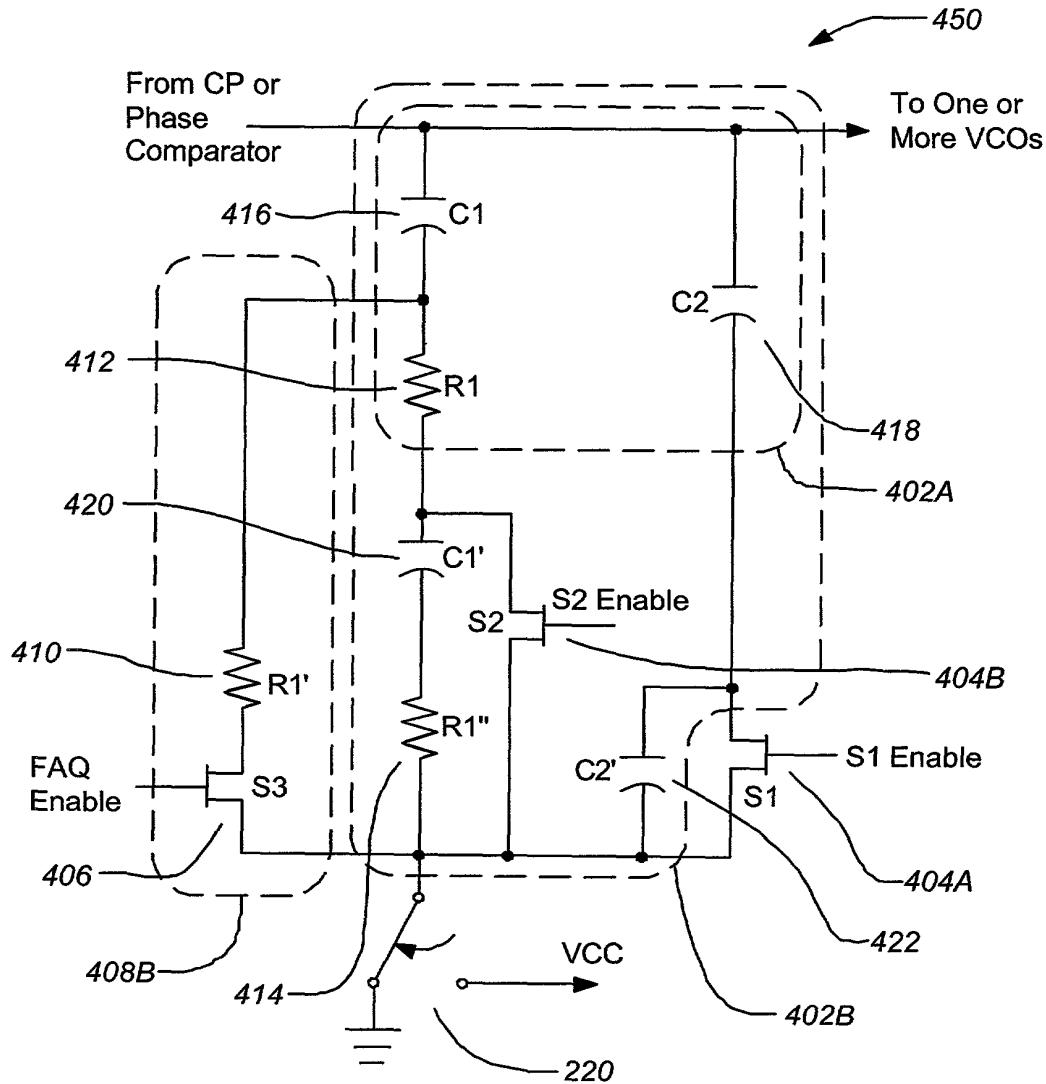
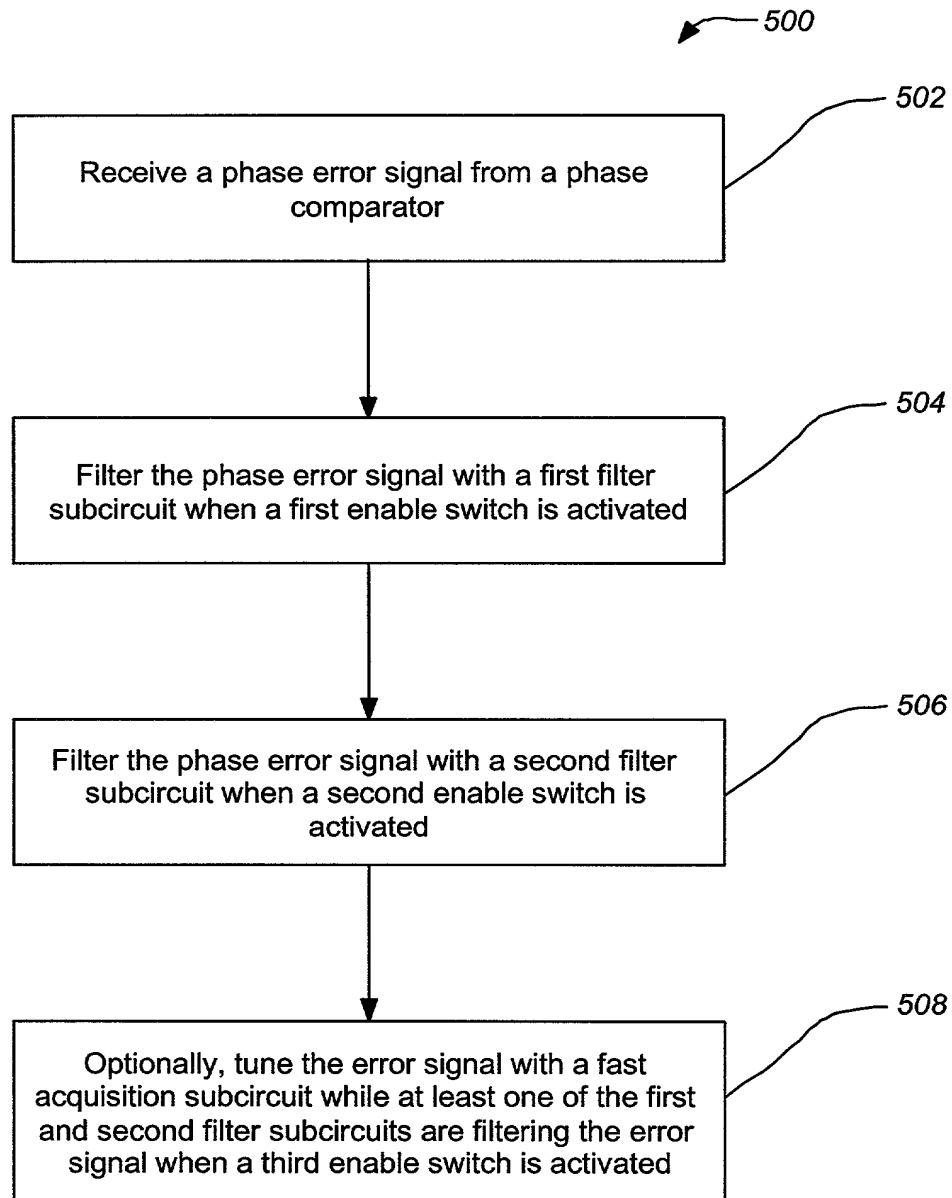


FIG. 4C

Loop Filter	S1	S2	S3	C1 (total)	C2 (total)	R1 (total)
LPF1 (BW1)	Closed	Closed	Open	C1 only	C2 only	R1
LPF1 w/FAQ (BW1')	Closed	Closed	Closed	C1 only	C2 only	$\frac{R1' \times R1}{R1 + R1'}$
LPF2 (BW2)	Open	Open	Open	$\frac{C1 \times C1'}{C1 + C1'}$	$\frac{C2 \times C2'}{C2 + C2'}$	R1+R1''
LPF2 w/FAQ (BW2')	Open	Open	Closed	$\frac{C1 \times C1'}{C1 + C1'}$	$\frac{C2 \times C2'}{C2 + C2'}$	$\frac{R1' \times (R1 + R1'')}{R1 + R1' + R1''}$

FIG. 4D



**FIG. 5**